

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A communication system comprising: ~~provided with~~  
~~a terminal device and a call connection server operable to connect a call at a predetermined~~  
~~telephone number to said terminal device on the basis of a designation address which is~~  
~~associated with said predetermined telephone number,~~

~~said terminal device comprising:~~

a private base station apparatus that is configured to connect with an IP network by  
transmitting and receiving IP packets;

a mobile terminal device configured to connect to said IP network by wireless  
communication through either a public wireless base station or said private base station  
apparatus;

an IP telephone terminal that is configured to talk through said private base station  
apparatus with said IP network by transmitting and receiving IP packets; and

a call connection server configured to connect a call at a predetermined telephone  
number of said IP telephone terminal to either said IP telephone terminal or said mobile  
terminal device on the basis of a designation address of said IP telephone terminal which is  
associated with said predetermined telephone number,

said mobile terminal device comprising:

a registration information transmitting unit ~~operable~~ configured to transmit, when

connecting with [[a]] said IP network which can be used for communication with said call

connection server, to said call connection server a terminal identifier for identifying said

mobile terminal device and a terminal location address for identifying the location ~~thereof on~~

~~said network with which said terminal device is connected~~ of the current private base station

apparatus on said IP network with which said mobile terminal device is connected, and

said call connection server comprising:

        a storing unit ~~operable~~ configured to store said designation address and said terminal identifier in association with said predetermined telephone number;

        a registration information receiving unit ~~operable~~ configured to receive said terminal identifier and said terminal location address;

        an authentication unit ~~operable~~ configured to authenticate said mobile terminal device on the basis of said terminal identifier which is received and said terminal identifier which is stored in said storing unit;

        a priority designation address setting unit ~~operable~~ configured to associate, when said mobile terminal device is authenticated by said authentication unit, said terminal location address as received and said predetermined telephone number, which is stored in said storing unit in association with said terminal identifier, and set said terminal location address as a priority designation address which is given a priority higher than said designation address;

    and

        a call connection unit ~~operable~~ configured to connect said call to said mobile terminal device on the basis of said terminal location address in the case where said priority designation address has been set up.

Claim 2 (Currently Amended): The communication system as claimed in claim 1 wherein said call connection server further comprises a detection unit ~~operable~~ configured to detect that said mobile terminal device is disconnected from said IP network, and wherein when said detection unit detects that said mobile terminal device is disconnected from said IP network, said priority designation address setting unit deregisters said priority designation address as set.

Claim 3 (Currently Amended): The communication system as claimed in claim 1 wherein said storing unit is ~~operable~~ configured to further store, in association with said predetermined telephone number, a user identifier for identifying a user who utilizes said predetermined telephone number and a password associated with said user identifier; wherein said registration information transmitting unit is ~~operable~~ configured to further transmit said user identifier and said password to said call connection server;

wherein said registration information receiving unit is ~~operable~~ configured to receive said user identifier and said password; and

wherein said authentication unit is ~~operable~~ configured to authenticate said mobile terminal device on the basis of said terminal identifier, said user identifier and said password as received.

Claim 4 (Currently Amended): The communication system as claimed in claim 1 wherein said mobile terminal device further ~~comprising~~ comprises a terminal identifier storing unit ~~operable~~ configured to store said terminal identifier in order that said terminal identifier can be read only by said registration information transmitting unit; and wherein said registration information transmitting unit is ~~operable~~ configured to transmit said terminal identifier as read from said terminal identifier storing unit to said call connection server.

Claim 5 (Currently Amended): The communication system as claimed in claim 3 wherein said mobile terminal device further comprises a user information storing unit ~~operable~~ configured to store said user identifier and said password; and wherein said registration information transmitting unit is ~~operable~~ configured to transmit said terminal identifier and said user identifier and password stored in said user information storing unit to said call connection server.

Claim 6 (Currently Amended): The communication system as claimed in claim 1, wherein said mobile terminal device includes:

~~a private base station apparatus that can be connected with said network; and~~  
~~a mobile terminal device provided with said registration information transmitting unit~~  
~~and connectable with said network by wireless communication through either a public~~  
~~wireless base station or said private base station apparatus, and wherein~~  
~~said mobile terminal device can is configured to perform wireless communication~~  
with said private base station apparatus by the use of the same protocol as it uses for the wireless communication with said public wireless base station.

Claim 7 (Currently Amended): The communication system as claimed in claim 6 wherein each of said mobile terminal device and said private base station apparatus comprises is provided with:

a first communication interface operable on the basis of said protocol;  
a second communication interface operable for local communication; and  
a switch unit operable to switch between said first communication interface and said second communication interface in accordance with the manipulation of a user.

Claim 8 (Currently Amended): The communication system as claimed in claim 6 wherein said private base station apparatus comprises is provided with: an adapter unit which is removably attached to a computer and is removable from the computer; and a communication antenna unit operable configured for wireless communication with said mobile terminal device.

Claim 9 (Currently Amended): A call connection server ~~operable to connect a call at a predetermined telephone number to a terminal device on the basis of a designation address which is associated with said predetermined telephone number, which is part of a communication system that includes a private base station apparatus configured to connect with an IP network by transmitting and receiving IP packets, a mobile terminal device configured to connect with said IP network by wireless communication through either a public wireless base station or said private base station apparatus, and an IP telephone terminal configured to talk through said private base station apparatus with said IP network by transmitting and receiving IP packets, said call connection server comprising:~~

a storing unit ~~operable configured~~ to store said designation address of ~~said IP telephone terminal~~ and said terminal identifier in association with said predetermined telephone number ~~of said mobile terminal device~~;

a registration information receiving unit ~~operable configured~~ to receive, when said ~~mobile terminal device~~ is connected with [[a]] ~~an IP network which can be used for communication with said call connection server, from said mobile terminal device a terminal identifier for identifying said mobile terminal device and a terminal location address for identifying the location thereof on said network with which said terminal device is connected of the current private base station apparatus on said IP network with which said mobile terminal device is connected~~;[[,]]

an authentication unit ~~operable configured~~ to authenticate said ~~mobile terminal device~~ on the basis of said terminal identifier which is received and said terminal identifier which is stored in said storing unit;

a priority designation address setting unit ~~operable configured~~ to associate, when said ~~mobile terminal device~~ is authenticated by said authentication unit, said terminal location address as received and said predetermined telephone number, which is stored in said storing

unit in association with said terminal identifier, and set said terminal location address as a priority designation address which is given a priority higher than said designation address; and

a call connection unit ~~operable~~ configured to connect said call to said mobile terminal device on the basis of said terminal location address in the case where said priority designation address has been set up.

Claim 10 (Currently Amended): The call connection server as claimed in claim 9 further comprising a detection unit ~~operable~~ configured to detect that said mobile terminal device is disconnected from said IP network, wherein

when said detection unit detects that said mobile terminal device is disconnected from said IP network, said priority designation address setting unit deregisters said priority designation address as set.

Claim 11 (Currently Amended): The call connection server as claimed in claim 9 wherein said storing unit is ~~operable~~ configured to further store, in association with said predetermined telephone number, a user identifier for identifying a user who utilizes said predetermined telephone number and a password associated with said user identifier, wherein

said registration information receiving unit is ~~operable~~ configured to further receive said user identifier and said password from said mobile terminal device; and wherein

said authentication unit is ~~operable~~ configured to authenticate said mobile terminal device on the basis of said terminal identifier, said user identifier and said password as received.

Claim 12 (Currently Amended): ~~A terminal device operable in order that a call at a predetermined telephone number to it on the basis of a designation address which is~~

~~associated with said predetermined telephone number~~ A mobile terminal device which is part of a communication system that includes a private base station apparatus configured to connect with an IP network by transmitting and receiving IP packets, an IP telephone terminal configured to talk through said private base station apparatus with said IP network by transmitting and receiving IP packets, and a call connection server configured to connect a call at a predetermined telephone number of said IP telephone terminal to either said IP telephone terminal or said mobile terminal device on the basis of a designation address of said IP telephone terminal which is associated with said predetermined telephone number,  
wherein

~~a call connection server receives a terminal identifier for identifying said terminal device and a terminal location address for identifying the location address for identifying the location thereof on said network which can be used for communication with said call connection server from said terminal device, and associates said terminal location address as received and said predetermined telephone number, and sets said terminal location address as a priority designation address which is given a priority higher than said designation address;~~  
~~and wherein~~

said mobile terminal device is provided with a registration information transmitting unit ~~operable configured~~ to transmit, when it is connected with said IP network, ~~said a~~ terminal identifier and ~~said a~~ terminal location address to said call connection server, ~~said~~ terminal location address is for identifying the location of the current private base station apparatus on said IP network which can be used for communication with said call connection server from said mobile terminal device, and associates said terminal location address as received and said predetermined telephone number, and sets said terminal location address as a priority designation address which is given a priority higher than said designation address,  
and

wherein said mobile terminal device is configured to connect with said IP network by wireless communication through either a public wireless base station or said private base station apparatus.

Claim 13 (Currently Amended): The mobile terminal device as claimed in claim 12 further comprising a terminal identifier storing unit ~~operable~~ configured to store said terminal identifier in order that said terminal identifier can be read only by said registration information transmitting unit, wherein

    said registration information transmitting unit is ~~operable~~ configured to transmit said terminal identifier as read from said terminal identifier storing unit to said call connection server.

Claim 14 (Currently Amended): The mobile terminal device as claimed in claim 12

wherein said call connection server is ~~operable~~ configured to authenticate said mobile terminal device on the basis of said terminal identifier, a user identifier for identifying a user who utilizes said predetermined telephone number and said user identifier; wherein

    said mobile terminal device further comprises: a user information storing unit ~~operable~~ configured to store said user identifier and said password; and wherein  
    said registration information transmitting unit is ~~operable~~ configured to transmit said terminal identifier and said user identifier and password stored in said user information storing unit to said call connection server.

Claim 15 (Currently Amended): The mobile terminal device as claimed in claim 12 wherein said mobile terminal device ~~includes~~:

~~a private base station apparatus that can be connected with said network; and~~

~~a mobile terminal device provided with said registration information transmitting unit and connectable with said network by wireless communication through either a public wireless base station or said private base station apparatus, and wherein said mobile terminal device can is configured to perform wireless communication with said private base station apparatus by the use of the same protocol as it uses for the wireless communication with said public wireless base station.~~

Claim 16 (Currently Amended): The mobile terminal device as claimed in claim 15, wherein each of said terminal device and said private base station apparatus comprises is provided with:

a first communication interface operable on the basis of said protocol;  
a second communication interface operable for local communication; and  
a switch unit operable to switch between said first communication interface and said second communication interface in accordance with the manipulation of a user.

Claim 17 (Currently Amended): The mobile terminal device as claimed in claim 15 wherein said private base station apparatus is provided with: an adapter unit which is removably attached to a computer and is removable from the computer; and a communication antenna unit operable configured for wireless communication with said mobile terminal device.

Claim 18 (Currently Amended): A communication method for a communication system that includes operable with a terminal device and a call connection server operable to connect a call at a predetermined telephone number to said terminal device on the basis of a designation address which is associated with said predetermined telephone number a private base station apparatus configured to connect with an IP network by transmitting and

receiving IP packets, a mobile terminal device configured to connect with said IP network by wireless communication through either a public wireless base station or said private base station apparatus, an IP telephone terminal configured to talk through said private base station apparatus with said IP network by transmitting and receiving IP packets; and a call connection server configured to connect a call at a predetermined telephone number of said IP telephone terminal to either said IP telephone terminal or said mobile terminal device on the basis of a designation address of said IP telephone terminal which is associated with said predetermined telephone number, wherein said call connection server is operable configured to store said designation address and said terminal identifier in association with said predetermined telephone number, said communication method comprising:

    a step (A) in which, when said mobile terminal device is connected with a IP network which can be used for communication with said call connection server, said call connection server receives from said mobile terminal device a terminal identifier for identifying said mobile terminal device and a terminal location address for identifying the location ~~thereof on said network with which said terminal device is connected~~ of the current private base station apparatus on said IP network with which said mobile terminal device is connected;[[,]]

    a step (B) in which said call connection server authenticates said mobile terminal device on the basis of said terminal identifier and said terminal identifier as stored;

    a step (C) in which, when said mobile terminal device is authenticated in said step (B), said call connection server associates said terminal location address as received and said predetermined telephone number, which is stored in association with said terminal identifier, and sets said terminal location address as a priority designation address which is given a priority higher than said designation address; and

a step (D) in which, in the case where said priority designation address has been set up, said call connection server connects said call to said mobile terminal device on the basis of said terminal location address.

Claim 19 (Currently Amended): The communication method as claimed in claim 18 further comprising:

a step (E) in which said call connection server detects that said mobile terminal device is disconnected from said IP network; and

a step (F) in which, when it is detected in said step (E) that said mobile terminal device is disconnected from said IP network, said server deregisters said priority designation address which is set in said step (C).

Claim 20 (Currently Amended): The communication method as claimed in claim 18 wherein a user identifier for identifying a user who utilizes said predetermined telephone number and a password associated with said user identifier are further stored in association with said predetermined telephone number, wherein

said call connection server receives said user identifier and said password from said call connection server mobile terminal device in said step (A), wherein

said call connection server authenticates said mobile terminal device on the basis of said terminal identifier, said user identifier and said password as received in said step (B).

Claim 21 (Currently Amended): The communication method as claimed in claim 18 wherein said call connection server receives said terminal identifier, which is stored inside of said mobile terminal device so that it can only be read, from said mobile terminal device in said step (A).

Claim 22 (Currently Amended): The communication method as claimed in claim 20 wherein said call connection server receives said user identifier and said password, which are stored inside of said mobile terminal device, from said mobile terminal device in said step (A).

Claim 23 (Currently Amended): The communication method as claimed in claim 18 wherein said mobile terminal device includes:

~~a private base station apparatus that can be connected with said network; and a mobile terminal device provided with said registration information transmitting unit and connectable with said network by wireless communication by wireless communication through either a public wireless base station or said private base station apparatus, and wherein~~  
~~said mobile terminal device connects with said IP network in said step (A) by establishing wireless communication with said private base station apparatus by the use of the same protocol as it uses for the wireless communication with said public wireless base station.~~